CLAIM AMENDMENT:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. **(Canceled)**

12. **(Canceled)**

13. **(Canceled)**

14. **(Canceled)**

15. **(Canceled)**

16. **(Canceled)**

17. **(Canceled)**

18. **(Currently Amended)** A method of processing radiological orders using a radiological

information system containing radiological examination orders and associated information, a picture

archive and communication system, and an imaging apparatus capable of producing an image

sequence having a plurality of individual images therein, including interfacing said radiological

information system, said picture archive and communication system and said imaging apparatus in an

effective and efficient manner, comprising the steps of:

receiving said radiological examination orders;

affiliating said radiological orders using said imaging apparatus that are each assigned

to a common patient into a super order;

conveying said radiological examination orders to said imaging apparatus for imaging;

generating image sequences having at least one individual radiological image;

delivering image sequences corresponding to unaffiliated radiological examination

orders to a storage system;

analyzing said at least one individual radiological image within said image sequences

corresponding to said super orders using automated electronic image analysis

comprising histogram analysis to determine associated ones of ~~said multiples~~

~~of~~ said radiological orders;

assigning said at least one individual radiological image to an appropriate one of said

plurality of associated studies and work orders based upon said analyzing and

determining step; and

transmitting said assigned at least one individual radiological image and said

appropriate one of said plurality of associated studies and work orders to said

storage system.

19. **(Previously presented)** The method of processing radiological orders of claim 18 wherein said

step of affiliating further comprises the steps of:

distinguishing said radiological examination orders that are unaffiliated with other

radiological examination orders from radiological examination orders that are

affiliated with other radiological examination orders; and

assembling affiliated radiological examination orders into a super order responsive to

said distinguishing.

20. **(Original)** The method of processing radiological orders of claim 19 wherein:

said conveying step further comprising conveying said unaffiliated radiological examination orders and said super orders to said imaging apparatus for imaging responsive to said distinguishing and said assembling steps; and

said at least one individual radiological image is generated corresponding to said unaffiliated radiological examination orders and said super orders.

21. **(Original)** The method of processing radiological orders of claim 19 wherein

said radiological examination orders are received from said radiological information system;

said image sequences and said unaffiliated radiological examination orders are delivered to said picture archive and communication system; and

said at least one individual radiological image and said appropriate one of said plurality of associated studies and work orders are transmitted to said picture archive and communication system.

22. **(Canceled)**

23. **(Original)** The method of processing radiological orders of claim 18 wherein said analyzing step further comprises moments of order analysis.

24. **(Original)** The method of processing radiological orders of claim 18 wherein said analyzing step further comprises peak finding techniques.

25. **(Original)** The method of processing radiological orders of claim 18 wherein said analyzing step further comprises analysis of information from at least one previous analysis step.

26. **(Original)** The method of processing radiological orders of claim 18 wherein said analyzing step further comprises evaluating series information to distinguish multiple procedures.

27. **(Original)** The method of processing radiological orders of claim 18 wherein said step of determining an associated region further comprises determining an associated anatomical region.

28. **(Canceled)**

29. **(Canceled)**

30. **(Canceled)**

31. **(Canceled)**

32. **(Canceled)**

33. **(New)** A method of processing radiological orders using a radiological information system containing radiological examination orders and associated information, a picture archive and communication system, and an imaging apparatus capable of producing an image sequence having a plurality of individual images therein, including interfacing said radiological information system, said picture archive and communication system and said imaging apparatus in an effective and efficient manner, comprising the steps of:

receiving said radiological examination orders;

affiliating said radiological orders using said imaging apparatus that are each assigned to a common patient into a super order;

conveying said radiological examination orders to said imaging apparatus for imaging;

generating image sequences having at least one individual radiological image;

delivering image sequences corresponding to unaffiliated radiological examination orders to a storage system;

analyzing said at least one individual radiological image within said image sequences corresponding to said super orders using automated electronic image analysis comprising moments of order analysis to determine associated ones of said radiological orders;

assigning said at least one individual radiological image to an appropriate one of said plurality of associated studies and work orders based upon said analyzing and determining step; and

transmitting said assigned at least one individual radiological image and said appropriate one of said plurality of associated studies and work orders to said

7

storage system.

34. **(New)** The method of processing radiological orders of claim 33 wherein said step of affiliating further comprises the steps of:

distinguishing said radiological examination orders that are unaffiliated with other radiological examination orders from radiological examination orders that are affiliated with other radiological examination orders; and

assembling affiliated radiological examination orders into a super order responsive to said distinguishing.

35. **(New)** The method of processing radiological orders of claim 34 wherein:

said conveying step further comprising conveying said unaffiliated radiological examination orders and said super orders to said imaging apparatus for imaging responsive to said distinguishing and said assembling steps; and

said at least one individual radiological image is generated corresponding to said unaffiliated radiological examination orders and said super orders.

36. **(New)** The method of processing radiological orders of claim 34 wherein

said radiological examination orders are received from said radiological information system;

said image sequences and said unaffiliated radiological examination orders are delivered to said picture archive and communication system; and

said at least one individual radiological image and said appropriate one of said

plurality of associated studies and work orders are transmitted to said picture

archive and communication system.

37. **(New)** The method of processing radiological orders of claim 33 wherein said analyzing step

further comprises peak finding techniques.

38. **(New)** The method of processing radiological orders of claim 33 wherein said analyzing step

further comprises analysis of information from at least one previous analysis step.

39. **(New)** The method of processing radiological orders of claim 33 wherein said analyzing step

further comprises evaluating series information to distinguish multiple procedures.

40. **(New)** The method of processing radiological orders of claim 33 wherein said step of determining

an associated region further comprises determining an associated anatomical region.

41. **(New)** A method of processing radiological orders using a radiological information system

containing radiological examination orders and associated information, a picture archive and

communication system, and an imaging apparatus capable of producing an image sequence having

a plurality of individual images therein, including interfacing said radiological information system, said

picture archive and communication system and said imaging apparatus in an effective and efficient

manner, comprising the steps of:

9

receiving said radiological examination orders;

affiliating said radiological orders using said imaging apparatus that are each assigned

to a common patient into a super order;

conveying said radiological examination orders to said imaging apparatus for imaging;

generating image sequences having at least one individual radiological image;

delivering image sequences corresponding to unaffiliated radiological examination

orders to a storage system;

analyzing said at least one individual radiological image within said image sequences

corresponding to said super orders using automated electronic image analysis

comprising peak finding techniques to determine associated ones of said

radiological orders;

assigning said at least one individual radiological image to an appropriate one of said

plurality of associated studies and work orders based upon said analyzing and

determining step; and

transmitting said assigned at least one individual radiological image and said

appropriate one of said plurality of associated studies and work orders to said

storage system.

42. **(New)** The method of processing radiological orders of claim 41 wherein said step of affiliating

further comprises the steps of:

distinguishing said radiological examination orders that are unaffiliated with other

radiological examination orders from radiological examination orders that are

affiliated with other radiological examination orders; and

assembling affiliated radiological examination orders into a super order responsive to

said distinguishing.

43. (New) The method of processing radiological orders of claim 42 wherein:

said conveying step further comprising conveying said unaffiliated radiological

examination orders and said super orders to said imaging apparatus for

imaging responsive to said distinguishing and said assembling steps; and

said at least one individual radiological image is generated corresponding to said

unaffiliated radiological examination orders and said super orders.

44. (New) The method of processing radiological orders of claim 42 wherein

said radiological examination orders are received from said radiological information

system;

said image sequences and said unaffiliated radiological examination orders are

delivered to said picture archive and communication system; and

said at least one individual radiological image and said appropriate one of said

plurality of associated studies and work orders are transmitted to said picture

archive and communication system.

45. (New) The method of processing radiological orders of claim 41 wherein said analyzing step

further comprises analysis of information from at least one previous analysis step.

11

46. **(New)** The method of processing radiological orders of claim 41 wherein said analyzing step further comprises evaluating series information to distinguish multiple procedures.

47. **(New)** The method of processing radiological orders of claim 41 wherein said step of determining an associated region further comprises determining an associated anatomical region.